



Software for  
Business Intelligence

**BizInt Smart Charts**

Patents & IP Sequences | Clinical Trials | Drug Pipelines

# Introduction to BizInt Smart Charts for Patents

**EPO Patent Information Conference 2019**

*31 October 2019 - Bucharest, Romania*

*John Willmore, VP Product Development*

[www.bizint.com](http://www.bizint.com)

# BizInt Smart Charts

Patents & IP Sequences | Clinical Trials | Drug Pipelines

# takes your search results

**Pretium – laculis Bidentum** (in development)

Last Update: 2012-11-17  
Accession Number: 002011807  
Indications: Phorbol, Ficus, Maqui, Phenol  
Therapeutic Class (WHO): Mucosa, Facula, Saculi, Dolor  
Therapeutic Class (GAMA): Nuclei, Performance  
Originator: Egrissae condimentum conallia (Socmaund)  
Other Companies: Lycopis turpis (sed ulmicis)  
Last Update: 2012-11-17  
Accession Number: 002011807  
Confidence Rating: Strong  
Higest Phase: Phase II

Indication	Phase	Route	Country
Phorbol	Phase II	OP	Macronia
Ficus	Phase I	OP	Placemat
Maqui Phenol	Phase II	OP	Solides

Last Phase Change: 2011-09-20

**Toror Felis – Nunc** (in development)

Last Update: 2011-06-03  
Accession Number: 00207041902  
Indications: Citrus, Urtica  
Therapeutic Class (WHO): Dui, ac, umissae  
Therapeutic Class (GAMA): Solides  
Originator: Improbet (Socmaund)  
Other Companies: Lycopis turpis (sed ulmicis)  
Last Update: 2011-06-03  
Accession Number: 00207041902  
Confidence Rating: Uncertain  
Higest Phase: Phase I

Indication	Phase	Route	Country
Citrus	Phase I	OP	Solides
Solides	Phase II	OP	Blandit

Last Phase Change: 2010-12-20

**Etiam Mollis – Aenean** (in development)

Last Update: 2012-01-13  
Accession Number: 0020802980  
Indications: Phorbol, Bidentum, Libani  
Therapeutic Class (WHO): Dolor, variis, acis  
Therapeutic Class (GAMA): Nuclei, Performance  
Originator: Nuclei, Facula, Saculi (Socmaund)  
Other Companies: Condimentum (sed sed ulmicis)  
Last Update: 2012-01-13  
Accession Number: 0020802980  
Confidence Rating: Uncertain  
Higest Phase: Phase II

Indication	Phase	Route	Country
Phorbol	Phase I	OP	Faculis
Bidentum	Phase I	OP	Placemat
Libani	Phase I	OP	Indolens

Last Phase Change: 2011-01-20

**Consectetur** (Solids)

Last Update: 2012-03-01  
Accession Number: 0020598360  
Indications: Phorbol, Ficus, Anet  
Therapeutic Class (WHO): Mucosa, Facula, Saculi, Dolor  
Therapeutic Class (GAMA): Nuclei, Performance  
Originator: Egrissae condimentum conallia (Socmaund)  
Other Companies: Lycopis turpis (sed ulmicis)  
Last Update: 2012-03-01  
Accession Number: 0020598360  
Confidence Rating: Solids  
Higest Phase: Phase I

Indication	Phase	Route	Country
Phorbol	Phase II	OP	Macronia
Ficus	Phase I	OP	Solides
Anet	Phase II	OP	Solides

Last Phase Change: 2010-07-25

# ...and automatically builds tabular reports.

## Integrating results from different databases.

**Pretium – Iaculis Bibendum** (Lobortis et al.) Donec

**Toror Felis – Nunc** (Mollis et al.) Donec

**Etiam Mollis – Aenean** (Lobortis et al.) Donec

**Consectetur** (Lobortis et al.) Donec

**Consectetur 2A** (Lobortis et al.) Donec

Each document includes sections for: Last Update, Accession Number, Indications, Therapeutic Class, Originator, Other Companies, Last Update, Accession Number, Confidence Rating, Highest Phase, Drug Development (Phase Extended) table, Properties, Mechanism of Action, Route of Administration, Commercial Introduction, and Drug Development (Phase Extended) table.

	Drug	Common Drug Name	Database	Synonyms	Highest Phase	Companies	Last Update
1		Pretium					
2	Pretium XGS	Pretium	Loreet Sem	Varius auctor Diagn gravidia XS-2	Phase2	Lobortis Turpis Aliquam Sodales	2012-10-01
3	Sollicitudin 4S	Sollicitudin	Donec	Quam diam Augue dui	Phase 3	Egestas Condimetum Lobortis Turpis	2011-12-07
4	Sollicitudin	Sollicitudin	Elifend-UR	Quam diam Augue dui Aenean id lectus	Phase 3	Egestas Condimetum	2011-06-07
5	Etiam Mollis	Etiam Mollis	Loreet Sem	Adiscing Proin Mattis Faucibus lacus	Phase 3	Condimetum Erat	2012-01-13
6	Etiam Mollis	Etiam Mollis	Elifend-UR	Adiscing Et Sec Proin Mattis Faucibus	Phase 2	Condimetum Erat	2012-01-13
7	Toror Felis	Donec	Aenean lectus purus Nulla sit amet Quisque placerat 2A	Phase 2	Loareet	2011-06-03	
8	Toror Felis III	Toror Felis	Loreet Sem	Aenean lectus purus Quisque placerat	Phase 2	Loareet	2011-06-03
9	Consectetur	Consectetur	Donec	Purus non uma Ligula est Quam sem ac	Phase 3	Lobortis turpis	2012-03-01
10	Consectetur 2A	Consectetur	Nullam	Purus non uma Ligula est Quam sem ac	Phase 3	Lobortis turpis	2012-03-01

# Create reports integrating patent and IP sequence data.

CAS-9 - GenomeQuest, PatBase, DWPI (new STN), FAMPAT

Title	Database	Patent Family			Family Status				Probable Assignee	Sequence Locations				
		Patent	Kind	Date	Pub No.	State	Status	Expiry		Seq. ID Number	% Identity	Length	Location	
<b>1.</b> Modulating expression of a target nucleic acid comprises providing to the cell a guide RNA including a transcriptional activator or repressor domain as a fusion protein, and providing to the cell a nuclease null Cas9 protein	1.1 DWPI	US 2014356959	A	2014-12-04	US 20140356956 A1	ALIVE	PENDING	2034-06-04	PRESIDENT AND FELLOWS OF HARVARD COLLEGE	US20140356959-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.3
	1.2 DWPI	US 2014356956	A	2014-12-04	US 20140356956 A1	ALIVE	GRANTED	2034-06-04		US20140356956-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.4
	1.3 GPATPRT   <a href="#">link</a>	AU 2014274939	AA	2014-12-11	WO 14197568									
	1.4 GPATPRT   <a href="#">link</a>	WO 14197568	A2	2014-12-11	WO 14197568									
	1.5 Patbase   <a href="#">link</a>	CA 2914638	AA	2015-12-04	CA 2914638									
	1.6 FAMPAT   <a href="#">link</a>	KR 20160014036	A	2016-02-05	KR 20160014036									
<div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>1.1 DWPI</span> <span>1.5 Patbase</span> <span>1.6 FAMPAT</span> <span>1.5 Patbase</span> </div>														
<b>2.</b> New bacteriophage comprises polynucleotide expressing RNA-directed DNA-binding polypeptide comprising nuclease module, and targeting module comprising guide RNA, for restricting growth of host cell, and for preparing antiseptic composition	2.1 DWPI	WO 15070193	A1	2015-05-14	WO 2015070193 A1	ALIVE	PENDING	2034-11-11	RADIANT GENOMICS INC	US20150132263-0002	100.00	1368	claim: 19; 20	2.3
	2.2 DWPI	US 2015132263	A	2015-05-14	US 20150132263 A1	ALIVE	PENDING	2034-11-11		US20150353901-0002	100.00	1368	claim: 19; 20	2.4
	2.3 GPATPRT   <a href="#">link</a>	US 2015353901	A	2015-12-10	US 20150353901 A1									
	2.4 GPATPRT   <a href="#">link</a>													
	2.5 Patbase   <a href="#">link</a>													
	2.6 FAMPAT   <a href="#">link</a>													
<div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>2.1 DWPI</span> <span>2.5 Patbase</span> <span>2.6 FAMPAT</span> <span>2.5 Patbase</span> </div>														

# Leverage basic IP data from different sources...

	Title	Database	Patent Family		
			Patent	Kind	Date
1.	Modulating expression of a target nucleic acid comprises providing to the cell a guide RNA including a transcriptional activator or repressor domain as a fusion protein, and providing to the cell a nuclease null Cas9 protein	1.1 DWPI	US 2014356959	A	2014-12-04
		1.2 DWPI	US 2014356956	A	2014-12-04
		1.3 GPATPRT   <a href="#">link</a>	AU 2014274939	AA	2014-12-11
		1.4 GPATPRT   <a href="#">link</a>	WO 14197568	A2	2014-12-11
		1.5 Patbase   <a href="#">link</a>	WO 14197568	A3	2015-03-12
		1.6 FAMPAT   <a href="#">link</a>	CA 2914638	AA	2015-12-04
			KR 20160014036	A	2016-02-05
		1.1 DWPI			1.5 Patbase
2.	New bacteriophage comprising polynucleotide expressing RNA-directed DNA-binding polypeptide comprising nuclease module, and targeting module comprising guide RNA, for restricting growth of host cell, and for preparing antiseptic composition	2.1 DWPI	WO 15070193	A	2015-05-14
		2.2 DWPI	US 2015132263	A	2015-05-14
		2.3 GPATPRT   <a href="#">link</a>	US 2015353901	A	2015-12-10
		2.4 GPATPRT   <a href="#">link</a>			
		2.5 Patbase   <a href="#">link</a>			
		2.6 FAMPAT   <a href="#">link</a>			
		2.1 DWPI			2.5 Patbase

# and unique content from selected sources...


Family Status				Probable Assignee
Pub No.	State	Status	Expiry	
US 20140356956 A1	ALIVE	PENDING	2034-06-04	PRESIDENT AND FELLOWS OF HARVARD COLLEGE
US 9267135 B2	ALIVE	GRANTED	2034-06-04	
WO 201570193 A1	ALIVE	PENDING	2034-11-11	RADIANT ECONOMICS INC
US 20150132263 A1	ALIVE	PENDING	2034-11-11	
US 20150353901 A1	ALIVE	PENDING	2034-11-11	

1.6 FAMPAT      1.5 Patbase

2.6 FAMPAT      2.5 Patbase

...with a summary of key IP sequence data for each family.

Sequence Locations				
Seq. ID Number	% Identity	Length	Location	
US20140356959-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.3
-----				
US20140356956-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.4
-----				
US20150132263-0002	100.00	1368	claim: 19; 20	2.3
-----				
US20150353901-0002	100.00	1368	claim: 19; 20	2.4



## Patent Databases

*Provide data on patents filed worldwide*

- STN - Classic (including STNext) & New STN
- Questel Orbit.com (including FULLPAT)
- Minesoft PatBase
- Derwent Innovation
- Clarivate Cortellis IP, Integrity Patents
- GQ LifeSciences LifeQuest





## IP Sequence Databases

*Provide data on sequences filed in patents*

- GenomeQuest (Geneseq, GQ-PAT)
- STN (USGENE, DGENE, PCTGEN)
- **Under development:** CAS BioSequences on STN and Genome Quest.



## Literature Databases

*Provide data on technical and scientific publications*

- **Biomedical** (Embase, Biosis, Medline)
- **Scientific** (SciSearch, Chemical Abstracts, PQSciTech, etc.)
- **Technical** (INSPEC, RAPRA, GEOREF, etc.)
- **Hosts:** STN (Classic & New), SciFinder, Dialog, Ovid, PubMed



# Export search results from PatBase...

The screenshot displays the PatBase 'Export Wizard' dialog box. The wizard is titled 'Export Wizard' and offers several export options:

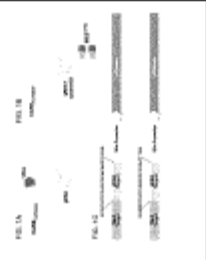
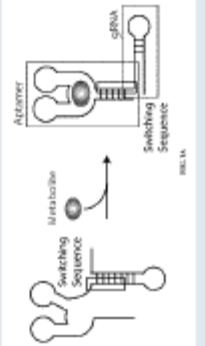
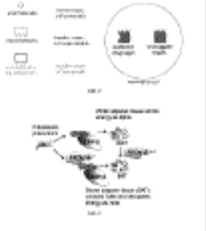
- Excel
- PDF
- RIS

Under the heading 'Third party export formats', the following options are listed:

- BizInt Smart Charts Data File
- VantagePoint
- Centredoc - RAPID4

A blue arrow points to the 'BizInt Smart Charts Data File' option. Below the format selection, there are input fields for 'Records to export' with 'From' and 'To' sub-fields. The 'From' field contains the value '1' and the 'To' field contains the value '279'. At the bottom right of the wizard, there are two buttons: 'Cancel' (with a red 'x' icon) and 'Continue' (with a right-pointing arrow icon).

# Export search results from PatBase...

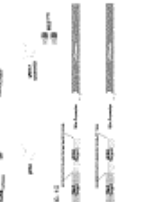
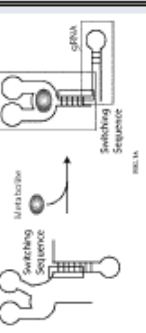
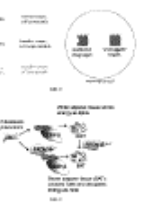
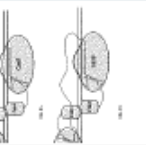
PatBase: patbase_cas9								
	Title	Patent Family			Patent Assignee	Inventor(s)	Image	Abstract
		Patent	Kind	Date				
1	RNA-GUIDED TRANSCRIPTIONAL REGULATION	US 2014356959	A	2014-12-04	HARVARD COLLEGE	CHURCH GEORGE M ESVELT KEVIN M MALI PRASHANT G		Source: US2014356956A Methods of modulating expression of a target nucleic acid in a cell are provided including introducing into the cell a first foreign nucleic acid encoding one or more RNAs complementary to DNA, wherein the DNA includes the target nucleic acid, introducing into the cell a second foreign nucleic acid encoding a nuclease-null Cas9 protein that binds to the DNA and is guided by [CONT.]
		US 2014356956	A	2014-12-04				
		AU 2014274939	AA	2014-12-11				
		WO 14197568	A2	2014-12-11				
		WO 14197568	A3	2015-03-12				
		CA 2914638	AA	2015-12-04				
		KR 20160014036	A	2016-02-05				
2	SWITCHABLE GRNAS COMPRISING APTAMERS	WO 15035139	A2	2015-03-12	HARVARD COLLEGE PRISIDENT AND FELLOWS OF HARVARD COLLEGE	HU JOHNNY HAO LIU DAVID R		Source: US2015071900A Some aspects of this disclosure provide compositions, methods, systems, and kits for controlling the activity and/or improving the specificity of RNA-programmable endonucleases, such as Cas9. [CONT.]
		WO 15035139	A3	2015-04-30				
		US 2015071902	A	2015-03-12				
		US 2015071901	A	2015-03-12				
		US 2015071900	A	2015-03-12				
		US 9228207	B	2016-01-05				
3	USE OF CATIONIC LIPIDS TO DELIVER CAS9	WO 15035136	A2	2015-03-12	HARVARD COLLEGE	LAWSON ANDREW LIU DAVID R THOMPSON DAVID B ZURIS JOHN ANTHONY		Source: US2015071903A Compositions, methods, strategies, kits, and systems for the supercharged protein-mediated delivery of functional effector proteins into cells in vivo, ex vivo, or in vitro are provided. Compositions, methods, strategies, kits, and systems for delivery of functional effector proteins using cationic lipids and cationic polymers are also provided. [CONT.]
		WO 15035136	A3	2015-05-14				
		US 2015071906	A	2015-03-12				
		US 2015071903	A	2015-03-12				
		US 2015118216	A	2015-04-30				

# How is this different from Excel?

- Customize after creation
- Tables within cells
- Images in cells
- Rows sort properly
- Integrate data from different platforms into a single report
- Update reports with new and changed data
- Deliver final reports in HTML, Word, Excel, PDF



# View full records and metadata for each row

	Title	Patent Family	Patent Assignee	Inventor(s)	Image
1	RNA-GU REGUL				
2	SWITCH COMPR				
3	USE OF DELIVE				
4	CAS9-F PROTE				

Records: patbase\_cas9

1: RNA-GUIDED TRANSCRIPTIONAL REGULATION

RNA-GUIDED TRANSCRIPTIONAL REGULATION

**Publication**

Patent	Kind	Date
US 2014356959	A	2014-12-04
US 2014356956	A	2014-12-04
AU 2014274939	AA	2014-12-11
WO 14197568	A2	2014-12-11
WO 14197568	A3	2015-03-12
CA 2914638	AA	2015-12-04
KR 20160014036	A	2016-02-05

**Priority Data**

Number
US20130830787P
WO2014US40868
US20140319530
US20140319289

**Applications**

Application
US20140319289
US20140319530
AU20140274939
WO2014US40868
WO2014US40868
CA20142914638
KR20157036892

**Designated States**

AÉ AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN

Row Properties

**Database:** PatBase (PATBASE)

**Date:** ---

**Accession Number:** 58690043

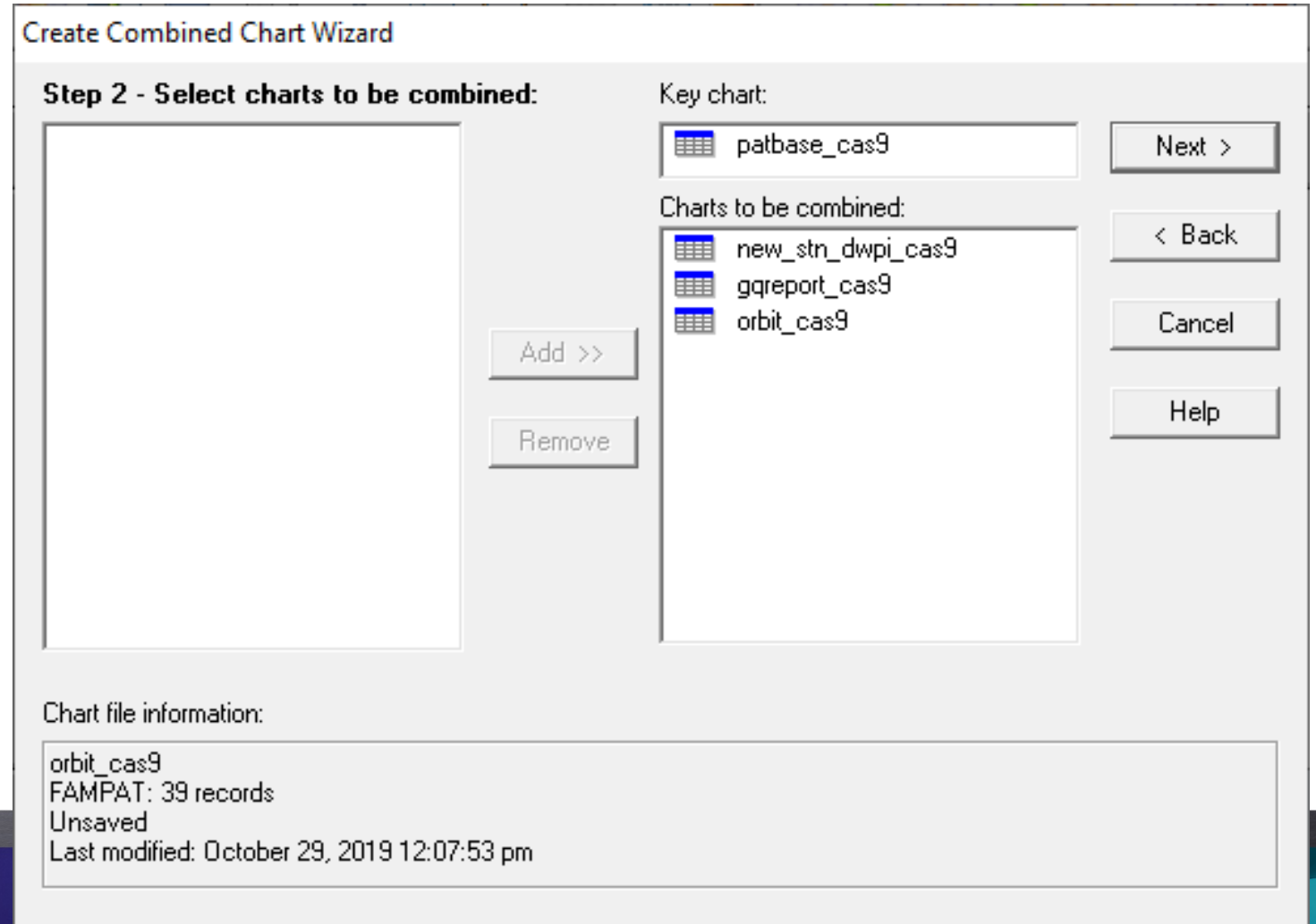
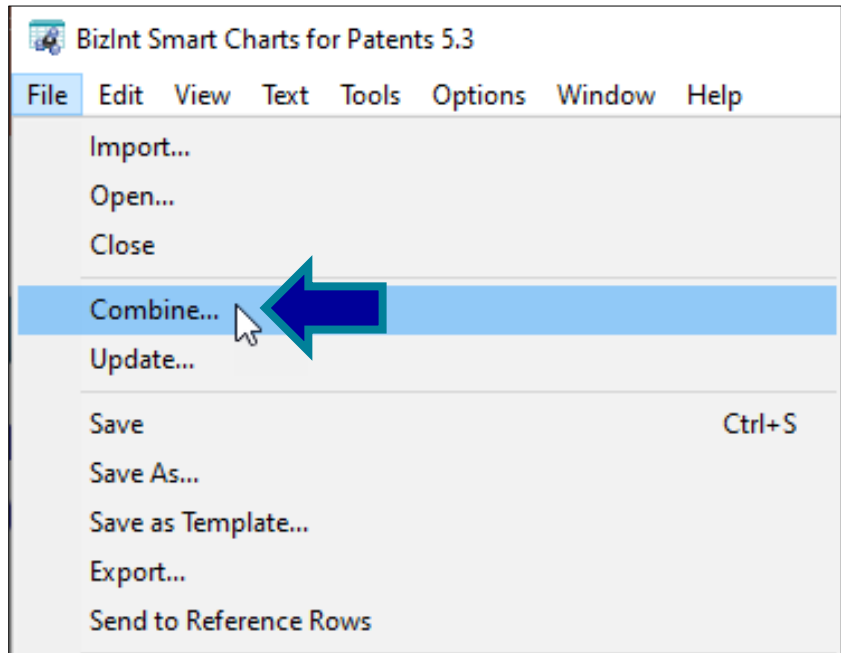
**Row Status:** Unchanged

**Publisher URL:**

<https://www.patbase.com/login.asp?viewfamd=58690043>

OK Cancel

# Combine with charts created from Derwent (STN), FAMPAT (Orbit), and GenomeQuest



# And get a new Combined Chart

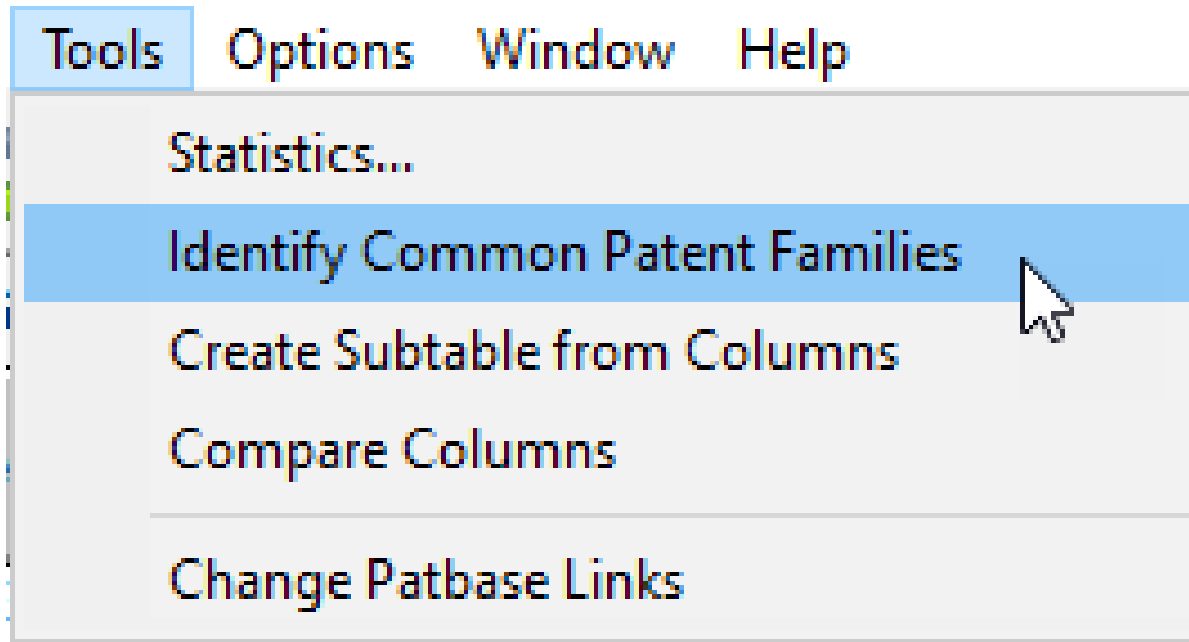
Combined: CAS-9 - GenomeQuest, PatBase, DWPI (new STN), FAMPAT

	Title	Database	Patent Family			Patent Assignee	Inventors
			Patent	Kind	Date		
1	CIS-BLOCKED GUIDE RNA	PatBase	WO 16022866	A1	2016-02-11	AGILENT TECHNOLOGIES INC	KENNEDY ANDREW RYAN DANIEL E
			\$ 2016040189	A	2016-02-11		
2	DIRECTED ENDONUCLEASES FOR REPEATABLE NUCLEIC ACID CLEAVAGE	PatBase	US 2016017393	A	2016-01-21	MASSACHUSETTS INST TECHNOLOGY	JACOBSON JOSEPH M JAKIMO NOAH MICHAEL
3	A PROTEIN TAGGING SYSTEM FOR IN VIVO SINGLE MOLECULE IMAGING AND CONTROL OF GENE TRANSCRIPTION	PatBase	WO 16011070	A2	2016-01-21	UNIV CALIFORNIA	GILBERT LUKE A QI LEI S TANENBAUM MARVIN E VALE RONALD D WEISSMAN JONATHAN S
4	COMPOSITIONS AND METHODS FOR PRODUCING PLANTS RESISTANT TO GLYPHOSATE HERBICIDE	PatBase	WO 16007347	A1	2016-01-14	DU PONT PIONEER HI BRED INT	DJUKANOVIC VESNA JONES SPENCER CHARLES LASSNER MICHAEL LIU ZHAN BIN LYZNIK L ALEKSANDER
5	COMPOSITIONS AND METHODS FOR SITE-DIRECTED DNA NICKING AND CLEAVING	PatBase	WO 16007604	A1	2016-01-14	GEN9 INC	HUDSON MICHAEL E JACOBSON JOSEPH LEAKE DEVIN SAAEM ISHTIAQ E





# And run Tools | Identify Common Patent Family



# Tools | Identify Common Patent Family

Database	Common Family	Patent Family		
		Patent	Kind	Date
Derwent World Patents Index	US 2014356956	US20140356959	A1	20141204
Derwent World Patents Index	US 2014356956	US20140356956	A1	20141204
		WO2014197568	A2	20141211
		WO2014197568	A3	20150312
		CA2914638	A1	20141211
FAMPAT	US 2014356956	US 2014356956	A1	2014-12-04
		US 2014356959	A1	2014-12-04
		US 9267133	B2	2016-02-23
GQPAT Gold+ Proteins	US 2014356956	US20140356959		20141204
GQPAT Gold+ Proteins	US 2014356956	US20140356956		20141204
PatBase	US 2014356956	US 2014356959	A	2014-12-04
		US 2014356956	A	2014-12-04
		AU 2014274939	AA	2014-12-11
		WO 14197568	A2	2014-12-11
		WO 14197568	A3	2015-03-12
		CA2914638	AA	2015-12-04
		KR 20160014036	A	2016-02-05

# Sort by the new Common Family column

**Sort Rows**

Columns:

- Identity
- Abstract
- Accession Number
- Advantages
- Advantages / Drawbacks
- Alignment
- Alignment Class
- Alignment Length
- Application
- Application Date
- Bits
- Calculated Expiry Date
- Chemical Code
- Citations
- Citations
- Country Count
- CPC
- Cross Reference
- Dates

Add >>

Remove

Ascending

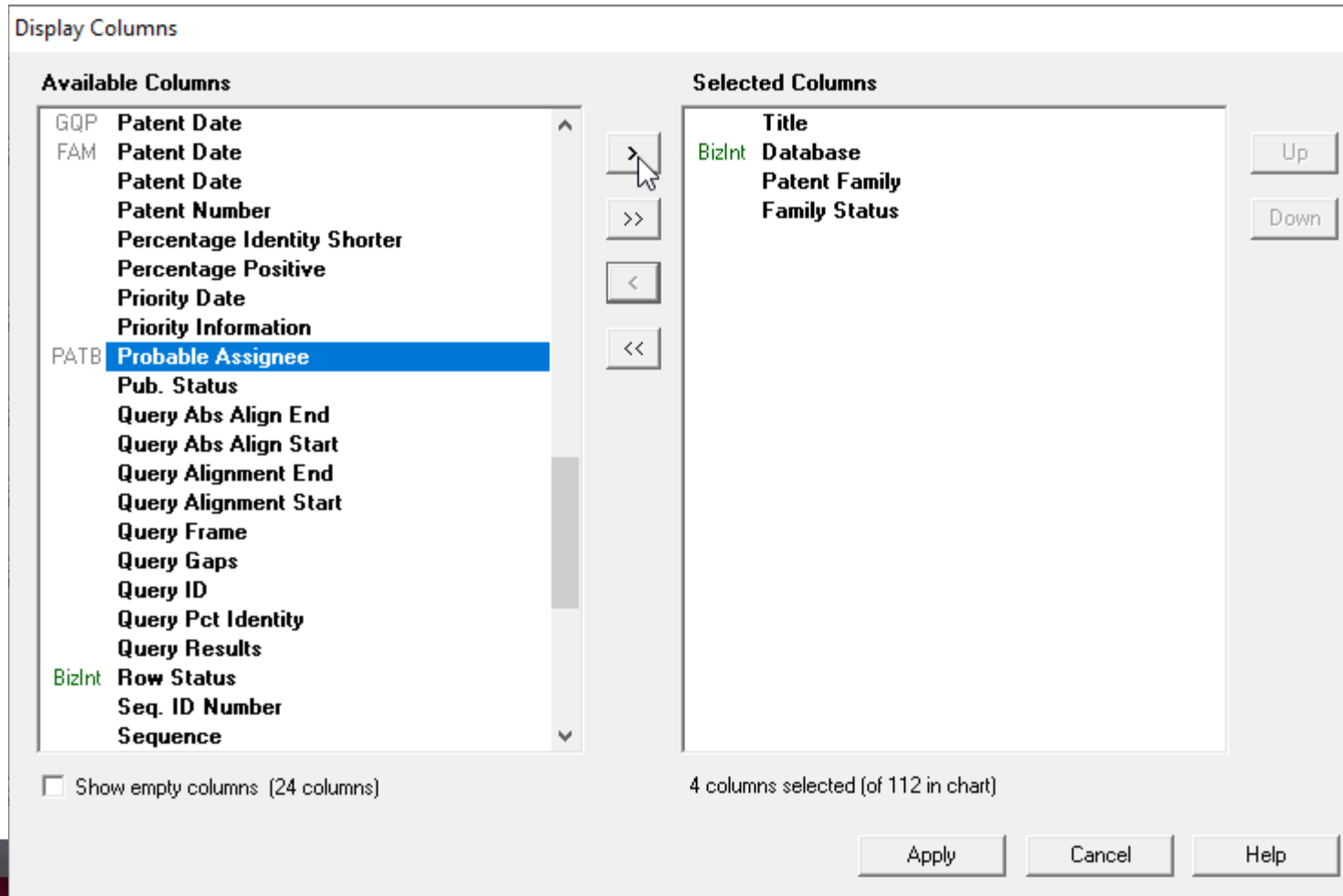
Sort Order:

Common Family Database

Sort

	Title	Database	Common Family	Patent Family		
				Patent	Kind	Date
218	Altering a target nucleic acid in a cell involves RNAs and Cas9 protein nickase co-localize to DNA target nucleic acid and nick the target nucleic acid resulting in adjacent nicks	Derwent World Patents Index	US 2014356956	US 20140356956	A1	20141204
				WO2014197568	A2	20141211
				WO2014197568	A3	20150312
				CA2914638	A1	20141211
219	RNA-Guided Transcriptional Regulation	FAMPAT	US 2014356956	US 2014356956	A1	2014-12-04
				US 2014356959	A1	2014-12-04
				US 9267135	B2	2016-02-23
220	RNA-Guided Transcriptional Regulation	GQPAT Gold+ Proteins	US 2014356956	US20140356959		20141204
221	RNA-Guided Transcriptional Regulation	GQPAT Gold+ Proteins	US 2014356956	US20140356956		20141204
222	RNA-GUIDED TRANSCRIPTIONAL REGULATION	PatBase	US 2014356956	US 2014356959	A	2014-12-04
				US 2014356956	A	2014-12-04
				AU 2014274939	AA	2014-12-11
				WO 14197568	A2	2014-12-11
				WO 14197568	A3	2015-03-12
				CA2914638	AA	2015-12-04
KR 20160014036	A	2016-02-05				

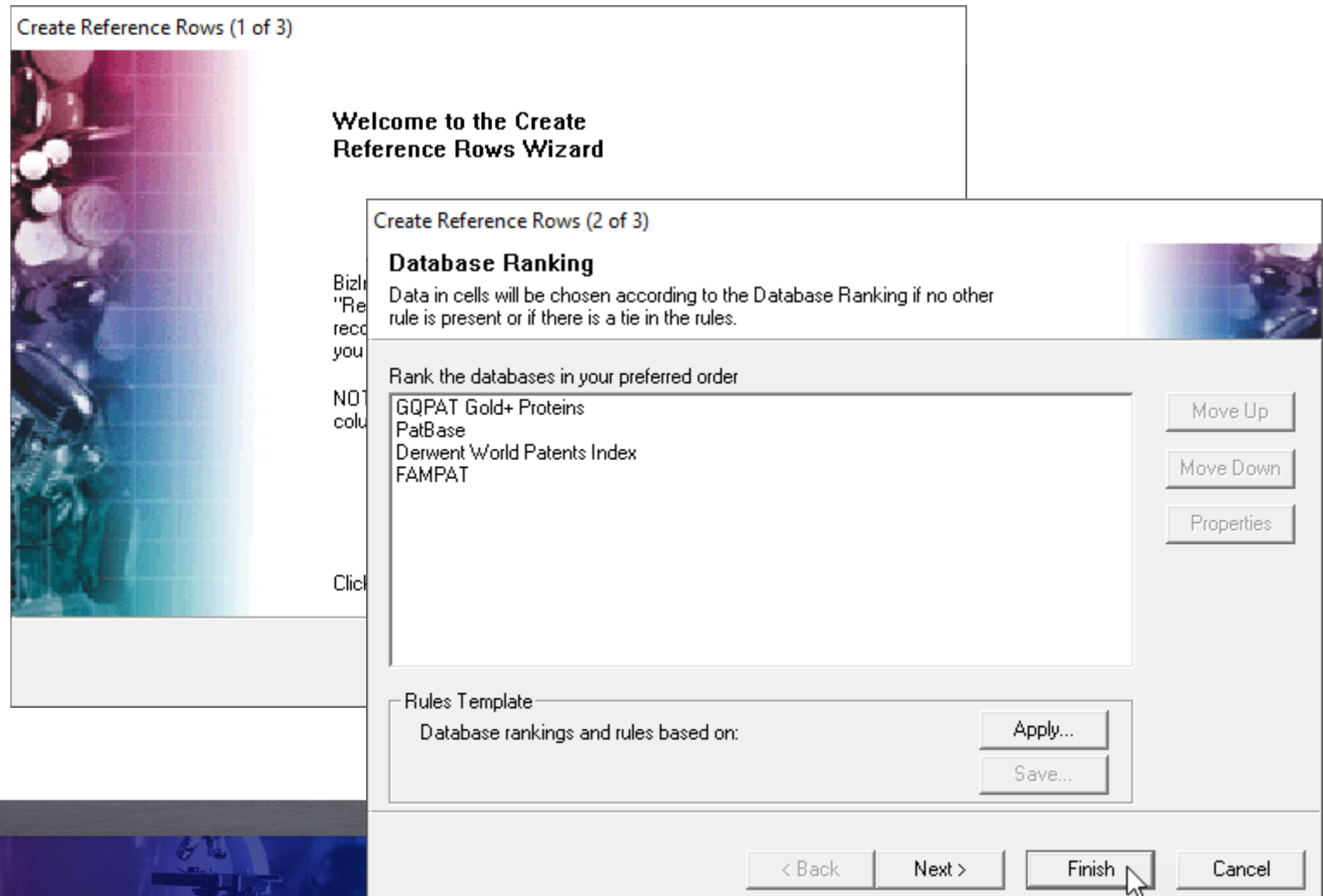
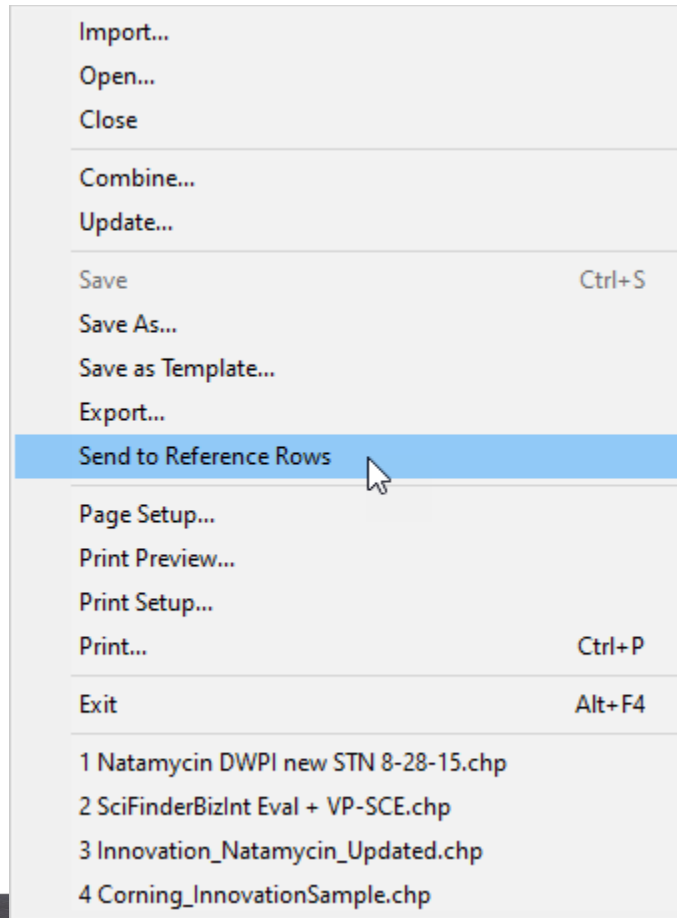
# Use View | Columns to select columns for the report



# Use View | Columns to select columns for the report

	Title	Database	Patent Family			Family Status				Probable Assignee
			Patent	Kind	Date	Pub No.	State	Status	Expiry	
218	Altering a target nucleic acid in a cell involves RNAs and Cas9 protein nickase co-localize to DNA target nucleic acid and nick the target nucleic acid resulting in adjacent nicks	Derwent World Patents Index	US20140356956	A1	20141204					
			WO2014197568	A2	20141211					
			WO2014197568	A3	20150312					
			CA2914638	A1	20141211					
219	RNA-Guided Transcriptional Regulation	FAMPAT	US 2014356956	A1	2014-12-04	US 20140356956 A1	ALIVE	PENDING	2034-06-04	
			US 2014356959	A1	2014-12-04					
			US 9267135	B2	2016-02-23	US 9267135 B2	ALIVE	GRANTED	2034-06-04	
220	RNA-Guided Transcriptional Regulation	GQPAT Gold+ Proteins	US20140356959		20141204					
221	RNA-Guided Transcriptional Regulation	GQPAT Gold+ Proteins	US20140356956		20141204					
222	RNA-GUIDED TRANSCRIPTIONAL REGULATION	PatBase	US 2014356959	A	2014-12-04					PRESIDENT AND FELLOWS OF HARVARD COLLEGE
			US 2014356956	A	2014-12-04					
			AU 2014274939	AA	2014-12-11					
			WO 14197568	A2	2014-12-11					
			WO 14197568	A3	2015-03-12					
			CA2914638	AA	2015-12-04					
			KR 20160014036	A	2016-02-05					

# Send the combined chart to Reference Rows to create a single row for each family



# “Selection View” in Reference Rows

	Title	Database	Patent Family			Family Status				Probable Assignee
			Patent	Kind	Date	Pub No.	State	Status	Expiry	
32 .1	RNA-Guided Transcriptional Regulation	Gold+ Proteins	US20140356959		20141204					
32 .2	RNA-Guided Transcriptional Regulation	GQPAT Gold+ Proteins	US20140356956		20141204					
32 .3	RNA-GUIDED TRANSCRIPTIONAL REGULATION	PatBase	US 2014356959 US 2014356956 AU 2014274939 WO 14197568 WO 14197568 CA 2914638 KR 20160014036	A A AA A2 A3 AA A	2014-12-04 2014-12-04 2014-12-11 2014-12-11 2015-03-12 2015-12-04 2016-02-05					PRESIDENT AND FELLOWS OF HARVARD COLLEGE
32 .4	Modulating expression of a target nucleic acid comprises providing to the cell a guide RNA including a transcriptional activator or repressor domain as a fusion protein, and providing to the cell a nuclease null Cas9 protein	Derwent World Patents Index	US20140356959	A1	20141204					
32 .5	Altering a target nucleic acid in a cell involves RNAs and Cas9 protein nickase co-localize to DNA target nucleic acid and nick the target nucleic acid resulting in adjacent nicks	Derwent World Patents Index	US20140356956 WO2014197568 WO2014197568 CA2914638	A1 A2 A3 A1	20141204 20141211 20150312 20141211					
32 .6	RNA-Guided Transcriptional Regulation	FAMPAT	US 2014356956 US 2014356959 US 9267135	A1 A1 B2	2014-12-04 2014-12-04 2016-02-23	US 20140356956 A1 US 9267135 B2	ALIVE ALIVE	PENDING GRANTED	2034-06-04 2034-06-04	

# Apply rules to columns...

Column Rule - Title

**Title**  
Choose how Reference Rows will select data for this column.

Selection Rule: Use database ranking

Match column:

**i** Use the database ranking to determine which value to select.

Database Ranking for this column:

- Derwent World Patents Index
- GQPAT Gold+ Proteins
- PatBase
- FAMPAT

Move Up

Move Down

OK Cancel

For the Title, change the database ranking to prefer DWPI

Column Rule - Patent Family

**Patent Family**  
Choose how Reference Rows will select data for this column.

Selection Rule: Most Content (characters)

Match column:

Database Ranking for:

- GQPAT Gold+ Proteins
- PatBase
- Derwent World Patents Index
- FAMPAT

Move Up

Move Down

OK Cancel

For the Patent Family, use the rule to select the “largest” patent family



# Family Status and Probable Assignee are unique columns, so these values are automatically selected..

	Title	Database	Patent Family			Family Status				Probable Assignee	
			Patent	Kind	Date	Pub No.	State	Status	Expiry		
32 .1	RNA-Guided Transcriptional Regulation	GQPAT Gold+ Proteins	US20140356959		20141204						
32 .2	RNA-Guided Transcriptional Regulation	GQPAT Gold+ Proteins	US20140356956		20141204						
32 .3	RNA-GUIDED TRANSCRIPTIONAL REGULATION	PatBase	US 2014356959	A	2014-12-04					PRESIDENT AND FELLOWS OF HARVARD COLLEGE	
			US 2014356956	A	2014-12-04						
			AU 2014274939	AA	2014-12-11						
			WO 14197568	A2	2014-12-11						
			WO 14197568	A3	2015-03-12						
			CA2914638	AA	2015-12-04						
			KR 20160014036	A	2016-02-05						
32 .4	Modulating expression of a target nucleic acid comprises providing to the cell a guide RNA including a transcriptional activator or repressor domain as a fusion protein, and providing to the cell a nuclease null Cas9 protein	Derwent World Patents	US20140356959	A1	20141204						
32 .5	Altering a target nucleic acid in a cell involves RNAs and Cas9 protein nickase co-localize to DNA target nucleic acid and nick the target nucleic acid resulting in adjacent nicks	Derwent World Patents Index	US20140356956	A1	20141204						
			WO2014197568	A2	20141211						
			WO2014197568	A3	20150312						
			CA2914638	A1	20141211						
32 .6	RNA-Guided Transcriptional Regulation	FAMPAT	US 2014356956	A1	2014-12-04	US	ALIVE	PENDING	2034-06-04		
			US 2014356959	A1	2014-12-04	20140356956 A1					
			US 9267135	B2	2016-02-23	US 9267135 B2	ALIVE	GRANTED	2034-06-04		

# Use View | Columns to select the columns for our sequence summary table, and change the column name for % Identity

Display Columns

**Available Columns**

- PATB International Class
- PATB Inventor(s) (Non-standardized)
- Inventors
- Latest Legal Status
- Latest Update
- Legal Status
- Main Claim
- WPI Manual Code
- Mechanism of Action
- Molecule Type
- Novelty
- FAM Object of Invention
- Organism Species
- Patent Assignee
- PATB Patent Assignee (Non-standardized)
- GQP Patent Date
- FAM Patent Date
- Patent Date
- Patent Number
- Percentage Positive
- Priority Date
- Priority Information

**Selected Columns**

- BizInt Title
- Database
- Patent Family
- Family Status
- PATB Probable Assignee
- Seq. ID Number
- Percentage Identity Shorter
- Length
- Location**

Show empty columns [24 columns]

9 columns selected (of 112 in chart)

Apply Cancel Help

Column Properties

Title: % Identity

Width: 120

Sort type: Numeric (real numbers)

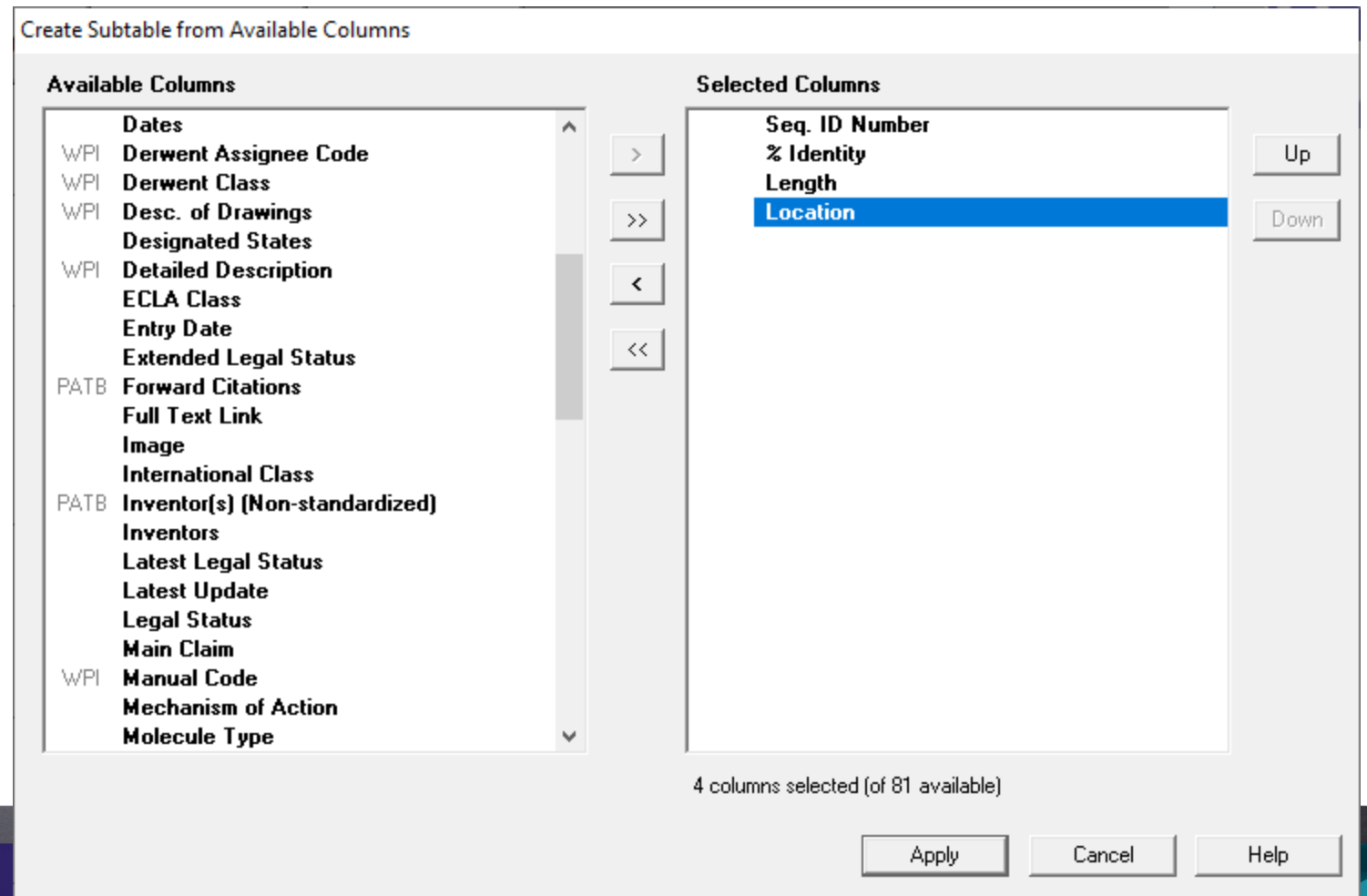
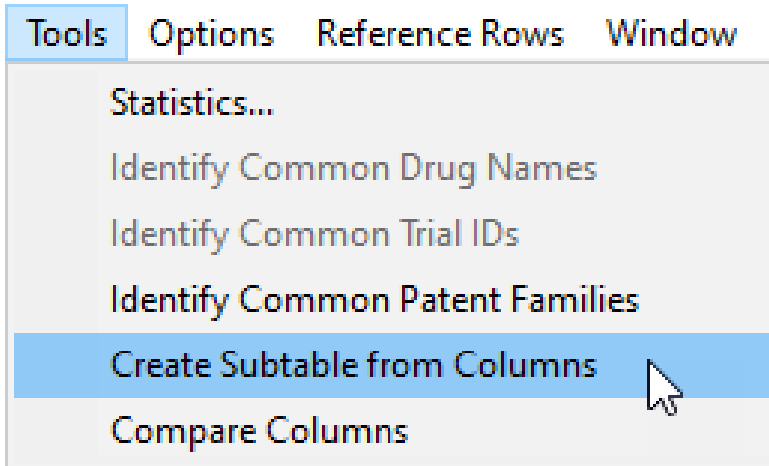
Link patent numbers to full text in HTML export

Convert DOI to links in HTML export

Link NCT numbers to clinicaltrials.gov in HTML exp

OK Cancel Help

# Use Tools | Create Subtable from Available Columns and select the columns for the sequence summary table



# Apply the “Summarize All Values” rule to the new Sequence Locations subtable

Sequence Locations			
Seq. ID Number	% Identity	Length	Location
US20140273226-0013	99.78	1400	claim: 8
US20140273226-0005	99.93	1413	claim: 8
US20140273226-0012	99.85		
US20140273226-0011	99.93		
US20140273226-0001	100.00		
US20140273231-0046	99.93		
US8871445-0047	99.93		
US8871445-0502	99.63		

Column Rule - Sequence Locations

**Sequence Locations**

Choose how Reference Rows will select data for this column.

Selection Rule: Summarize All Values

Match column:

- Use database ranking
- Earliest Date
- Latest Date
- Most Content (characters)
- Least Content (characters)
- Most Content (lines)
- Highest Development Phase
- Most Recently Updated
- Match Column
- Highest Number
- Lowest Number
- Closest to Zero
- Row Status
- Summarize All Values**
- Summarize Unique Values
- Select New Publications

Database Ranking for:

- GQPAT Gold+ Protein
- PatBase
- Derwent World Patent
- FAMPAT

in the group.

Move Up

Move Down

OK Cancel

# And export to see the report with all records for the same family summarized in a single row.

1.

Choose Export Format

Choose a file format for export

- HTML, chart and records
- HTML, chart only
- Word - chart and records
- Word - chart only
- Word - summary records
- Excel - chart only
- XML Smart Data Exchange - chart only
- VantagePoint - Smart Charts Edition

OK Cancel Help

2.

HTML Export Options

You can control the format of the generated HTML for this Reference Row chart using the options below.

- Include all source records in export
- Only include first source record for each Reference Row
  - Link to source record in first column
- Do not include records in export
- Include links to records on publisher website

OK Cancel Help

DWPI (new STN), FAMPAT

Patent Family				Family Status			Probable Assignee	Sequence Locations				
Patent	Kind	Date	Pub No.	State	Status	Expiry		Seq. ID Number	% Identity	Length	Location	
6959	A	2014-12-04	US	ALIVE	PENDING	2034-06-04	PRESIDENT AND FELLOWS OF HARVARD COLLEGE	US20140356959-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.3
6956	A	2014-12-04	20140356956 A1		GRANTED	2034-06-04		US20140356956-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.4
							1.6 FAMPAT	1.5 Patbase				
				PENDING		2034-11-11	RADIANT GENOMICS INC	US20150132263-0002	100.00	1368	claim: 19; 20	2.3
				PENDING		2034-11-11		US20150353901-0002	100.00	1368	claim: 19; 20	2.4
				PENDING		2034-11-11						

polynucleotide expressing RNA-directed DNA-binding polypeptide comprising nuclease module, and targeting module comprising guide RNA, for restricting growth of host cell, and for preparing antiseptic composition

2.1 DWPI

- 2.2 DWPI
- 2.3 GPATPRT | link
- 2.4 GPATPRT | link
- 2.5 Patbase | link
- 2.6 FAMPAT | link

2.5 Patbase

2.6 FAMPAT

2.5 Patbase

# Content selected by rules for title and patent family

	Title	Database	Patent Family		
			Patent	Kind	Date
1.	Modulating expression of a target nucleic acid comprising providing to the cell a guide RNA including a transcriptional activator or repressor domain as a fusion protein, and providing to the cell a nuclease null Cas9 protein	1.1 DWPI	US 2014356959	A	2014-12-04
		1.2 DWPI	US 2014356956	A	2014-12-04
		1.3 GPATPRT   <a href="#">link</a>	AU 2014274939	AA	2014-12-11
		1.4 GPATPRT   <a href="#">link</a>	WO 14197568	A2	2014-12-11
		1.5 Patbase   <a href="#">link</a>	WO 14197568	A3	2015-03-12
		1.6 FAMPAT   <a href="#">link</a>	CA 2914638	AA	2015-12-04
			KR 20160014036	A	2016-02-05
		1.1 DWPI			1.5 Patbase
2.	New phage composition comprising a polynucleotide expressing RNA-directed DNA-binding polypeptide comprising nuclease module, and targeting module comprising guide RNA, for restricting growth of host cell, and for preparing antiseptic composition	2.1 DWPI	WO 15070193	A	2015-05-14
		2.2 DWPI	US 2015132263	A	2015-05-14
		2.3 GPATPRT   <a href="#">link</a>	US 2015353901	A	2015-12-10
		2.4 GPATPRT   <a href="#">link</a>			
		2.5 Patbase   <a href="#">link</a>			
		2.6 FAMPAT   <a href="#">link</a>			
		2.1 DWPI			2.5 Patbase

# List of all records in the family, with links to websites

Title	Database	Patent
<b>1.</b> Modulating expression of a target nucleic acid comprises providing to the cell a guide RNA including a transcriptional activator or repressor domain as a fusion protein, and providing to the cell a nuclease null Cas9 protein <span style="float: right;">1.1 DWPI</span>	1.1 DWPI	US 2014356959
	1.2 DWPI	US 2014356956
	1.3 GPATPRT   <a href="#">link</a>	AU 2014274939
	1.4 GPATPRT   <a href="#">link</a>	WO 14197568
	1.5 Patbase   <a href="#">link</a>	WO 14197568
	1.6 FAMPAT   <a href="#">link</a>	CA 2914638
<b>2.</b> New bacteriophage comprises polynucleotide expressing RNA-directed DNA-binding polypeptide comprising nuclease module, and targeting module comprising guide RNA, for restricting growth of host cell, and for preparing antiseptic composition <span style="float: right;">2.1 DWPI</span>	2.1 DWPI	WO 14197568
	2.2 DWPI	US 2014356959
	2.3 GPATPRT   <a href="#">link</a>	US 2014356956
	2.4 GPATPRT   <a href="#">link</a>	WO 14197568
	2.5 Patbase   <a href="#">link</a>	WO 14197568
	2.6 FAMPAT   <a href="#">link</a>	CA 2914638

Combined: CAS-9 - GenomeQuest, PatBase

Title	Database	Patent
<b>1.</b> Modulating expression of a target nucleic acid comprises providing to the cell a guide RNA including a transcriptional activator or repressor domain as a fusion protein, and providing to the cell a nuclease null Cas9 protein <span style="float: right;">1.1 DWPI</span>	1.1 DWPI	US 2014356959
	1.2 DWPI	US 2014356956
	1.3 GPATPRT   <a href="#">link</a>	AU 2014274939
	1.4 GPATPRT   <a href="#">link</a>	WO 14197568
	1.5 Patbase   <a href="#">link</a>	WO 14197568
	1.6 FAMPAT   <a href="#">link</a>	CA 2914638
<b>2.</b> New bacteriophage comprises polynucleotide expressing RNA-directed DNA-binding polypeptide comprising nuclease module, and targeting module comprising guide RNA, for restricting growth of host cell, and for preparing antiseptic composition <span style="float: right;">2.1 DWPI</span>	2.1 DWPI	KR 20160014036
	2.2 DWPI	
	2.3 GPATPRT   <a href="#">link</a>	
	2.4 GPATPRT   <a href="#">link</a>	
	2.5 Patbase   <a href="#">link</a>	
	2.6 FAMPAT   <a href="#">link</a>	

<https://www.patbase.com/login.asp?viewfamd=57929021>

# and unique content from selected sources...

Family Status				Probable Assignee
Pub No.	State	Status	Expiry	
US 20140356956 A1	ALIVE	PENDING	2034-06-04	PRESIDENT AND FELLOWS OF HARVARD COLLEGE
US 9267135 B2	ALIVE	GRANTED	2034-06-04	
WO 201570193 A1	ALIVE	PENDING	2034-11-11	RADIANT ECONOMICS INC
US 20150132263 A1	ALIVE	PENDING	2034-11-11	
US 20150353901 A1	ALIVE	PENDING	2034-11-11	


1.6 FAMPAT      1.5 Patbase

2.6 FAMPAT      2.5 Patbase



...with a summary of key IP sequence data for each family.

Sequence Locations				
Seq. ID Number	% Identity	Length	Location	
US20140356959-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.3
-----				
US20140356956-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.4
-----				
US20150132263-0002	100.00	1368	claim: 19; 20	2.3
-----				
US20150353901-0002	100.00	1368	claim: 19; 20	2.4





# BizInt Smart Charts

*for Patents*

**QUESTIONS?**

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Trial software: [bizint.com/try](http://bizint.com/try)

THE JOURNEY CONTINUES...

[www.bizint.com](http://www.bizint.com)